



Dean, Ouisha &lt;ouisha.dean@solvay.com&gt;

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**GHG Permit**

4 messages

**Marty Hamilton** <marty.hamilton@wyo.gov>

Thu, Feb 5, 2015 at 7:49 AM

To: "Brown, Tim" &lt;Tim.Brown@solvay.com&gt;, "Toenyes, Ouisha" &lt;ouisha.toenyes@solvay.com&gt;

Hi Tim, Ouisha,

Tim you were correct eventually EPA will turn over the GHG PSD permit to the State for enforcement. Spoke to Cole briefly and there is a process it has to go through, but eventually it will end up with us.

Also, wondering if you've made any progress with IMPACT sign-in or if you plan to?

thanks,  
Marty

Marty Hamilton  
Air Quality Engineer  
Wyoming DEQ, Air Quality Division  
307-335-6977  
[marty.hamilton@wyo.gov](mailto:marty.hamilton@wyo.gov)

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**Toenyes, Ouisha** <ouisha.toenyes@solvay.com>

Thu, Feb 5, 2015 at 8:08 AM

To: Marty Hamilton &lt;marty.hamilton@wyo.gov&gt;

Cc: "Brown, Tim" &lt;Tim.Brown@solvay.com&gt;

Marty,

The original signed affidavits were mailed overnight to Steven Dietrich yesterday. I also sent a copy to Tony Hoyt. Although since we are quickly approaching the Emissions Inventory deadline, I would like to begin gathering the necessary data to update the facility profile for BO-4 and the DEQ website appears to be malfunctioning. Is there a form available that would prompt me on what data to gather to update the facility profile for BO-4 and the new compressor? Please let me know.

Thanks for your help,

-Ouisha

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—

Ouisha Toenyes  
Environmental Engineer  
(307) 872 - 6571

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**SOLVAY2016\_1.2\_001672**

**Marty Hamilton** <marty.hamilton@wyo.gov>  
To: "Toenyes, Ouisha" <ouisha.toenyes@solvay.com>

Thu, Feb 5, 2015 at 8:35 AM

Ouisha,  
Story is that DEQ's new website doesn't play well with some browsers, e.g., early versions of Explorer etc. Google Chrome seems to work ok, that's what i use.

I attached the forms for the Engine and Boiler Emission Units that the Title V group produced for IMPACT. And here's the link where I got them , , , ,

<http://deq.wyoming.gov/aqd/title-v/resources/forms-new-operating-permits/>

Also attached a guide for the SCC-naics codes which the NSR group uses.

If this isn't what you were looking for, let me know and I'll try again !

Good Luck!

Marty

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### 3 attachments



**AQD\_permitting\_TitleV\_Section-III-Emission-Units\_Boiler\_2014-0930.xlsx**  
290K



**AQD\_permitting\_TitleV\_Section-III-Emission-Units\_Engine\_2014-1104.xlsx**  
274K



**SCC-NAICS Quick Lookup.xlsx**  
30K

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**Toenyes, Ouisha** <ouisha.toenyes@solvay.com>  
To: Marty Hamilton <marty.hamilton@wyo.gov>

Thu, Feb 5, 2015 at 1:46 PM

Marty,

I believe that is what I need. Thank you.

**SOLVAY2016\_1.2\_001673**

4/8/2016

Solvay Mail - GHG Permit

-Ouisha

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**SOLVAY2016\_1.2\_001674**



Company Acme Corp Facility: Wyoming Gulch EU ID: B1

**Air Quality Division - Title V Operating Permit Program**  
**Emission Unit Form: Non-Utility Boiler (BOL)**

*One copy of this Emission Unit (EU) form shall be filled out for each Non-Utility Boiler at the facility.*

AQD EU ID: B1 Company EU ID: B-1A Operating Status: Operating  
the id # used in AQD permits ↑ the id # the facility uses ↑ The "inactive" choice should be used only rarely. Contact AQD if you have questions.

Equipment Description: Coal-Fired Boiler  
↑ the text will wrap so use as much space as you need and increase the row height as necessary

Initial Construction Commence Date: 12/11/2010 Initial Operation Commence Date: 12/20/2010  
↑ the dates associated with the first time the unit was constructed and started up at this facility, not subsequent like-kind replacements or modifications to the unit.  
"Construction" means fabrication, erection, or installation of a source. "Commenced" means when the applicant either had (i) begun, or caused to begin, a continuous program of physical on-site construction or modification of the facility or (ii) entered into binding agreements or contractual obligations, which could not be canceled or modified without substantial loss to the applicant, to undertake a program of construction or modification of the facility to be completed within a reasonable time.

Most Recent Construction/Modification Commencement Date: 12/11/2010  
Most Recent Operation Commencement Date: 12/20/2010  
← if the unit has been modified since initial construction, the dates associated with the subsequent startup. If the unit has not been ← modified these dates will be the same as the initial dates above

"Modification" means any physical change in, or change in the method of operation of, a source which increases the amount of any air pollutant emitted to which any state standard applies, or results in the emission of an air pollutant not previously emitted. For a source subject to a New Source Performance Standard (NSPS), modification is defined under WAQSR Chapter 5, Section 2(k).

Boiler Type: Wet Bottom Boiler Boiler Classification: Industrial  
↑ Data provided by manufacturer.

Heat Input Rating (MMBtu/hr): 360 ← Design capacity of the unit.

Primary Fuel Type: Coal

Btu Content: 9,500 Units: Btu/lb Fuel Sulfur Content: 0.70 Units: %  
Ash Content: 5.00 Units: %

Secondary Fuel Type: Fuel Oil (leave blank if secondary fuel is not used)

Btu Content: 141,000 Units: Btu/gal Fuel Sulfur Content: 0.5 Units: %  
Ash Content: 0.00 Units: %

Is a different fuel is used for situations such as startup or curtailments? Yes

If Yes, indicate the fuel and situations: Fuel oil is used for startups as necessary.

Maximum Operating Hour Schedule, hours/day: 24 Hours/year: 8760

Is there an Alternative Operating Scenario (AOS) authorized for this emission unit that is not included in an AOS for multiple emission units, already attached to this application? No

The alternative operating scenario must already be permitted under a WAQSR Ch 6, Sec 2 permit to ensure compliance with standards and regulations including ambient air quality standards and maximum allowable increments of deterioration.

If Yes: attach the Emission Unit AOS. The attachment must include the SIC code(s) for processes and products associated with the AOS, as well as the requirements that apply during the AOS.

**SCC Codes:** List all Source Classification Code(s) (SCC) that describe the process(es) performed by the emission source (e.g., 1-02-002-04). The SCC code can be determined at the following web site:

<http://cfpub.epa.gov/webfire/index.cfm?action=fire.detailedSearch>

1-03-002-21

An additional place to assist you to determine SCC codes is <http://www.mass.gov/eea/agencies/massdep/service/online/scs-emission-factors-and-naics-codes.html>; a list of the codes can be found at <http://www.nj.gov/dep/aqm/es/scc.pdf>

### Federal and State Rule Applicability:

New Source Performance Standards (NSPS, 40 CFR Part 60) that are applicable to the emission unit:

**D** For Boilers, this is typically D, gas-fired boilers may be Db

National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61) that are applicable to the emission unit (these include asbestos, benzene, beryllium, mercury, and vinyl chloride):

**None**

National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63) that are applicable to the emission unit:

**DDDDD** For Boilers, this is typically DDDDD.

### Emission Unit Potential to Emit (PTE)

“Potential to Emit” (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design in the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| Criteria Pollutants                                                      |                            |                             |                          |
|--------------------------------------------------------------------------|----------------------------|-----------------------------|--------------------------|
| Pollutant                                                                | Potential to Emit (lbs/hr) | Potential to Emit (tons/yr) | Basis for Determination* |
| Carbon monoxide (CO)                                                     |                            |                             |                          |
| Nitrogen Oxides (NOx)                                                    | 28                         | 122.6                       | Permit Limit             |
| PM (Filt) – Primary PM, Filterable Portion Only                          | 27                         | 118.3                       | Permit Limit             |
| PM <sub>10</sub> (FIL) - Filterable Portion Only                         | 27                         | 118.3                       | Permit Limit             |
| PM <sub>2.5</sub> (FIL) - Filterable Portion Only                        | 12.5                       | 52                          | Permit Limit             |
| PM <sub>2.5</sub> (includes Filterables + Condensibles) (PM<2.5 Microns) |                            |                             |                          |
| PM <sub>10</sub> (includes Filterables + Condensibles) (PM<10 Microns)   |                            |                             |                          |
| Sulfur dioxide (SO <sub>2</sub> )                                        | 65                         | 284.7                       | Permit Limit             |
| Volatile organic compounds (VOC)                                         |                            |                             |                          |

Leave cells blank ↑↓ if the pollutant is not emitted. ↑↓

| Hazardous Air Pollutants (HAPs)           |                            |                             |                          |
|-------------------------------------------|----------------------------|-----------------------------|--------------------------|
| Pollutant (add rows as needed)            | Potential to Emit (lbs/hr) | Potential to Emit (tons/yr) | Basis for Determination* |
| Mercury                                   | 0.045                      | 0.2                         | AP-42                    |
| Hydrochloric acid                         | 2.74                       | 1.2                         | Other                    |
| Hydrogen fluoride (Hydrofluoric acid)     | 1.82                       | 8                           | Other                    |
| Benzene (including benzene from gasoline) | 2.74                       | 1.2                         | AP-42                    |
| Manganese (TSP)                           | 0.274                      | 0.12                        | AP-42                    |
|                                           |                            |                             |                          |

Insert additional rows as needed for additional pollutants.

\*Indicate the method used for determining potential emissions for each pollutant. Attach a description and calculations, as appropriate, documenting the basis for the PTE for each pollutant.

If permit limits are used, no additional information is needed.

Manufacturer's Data – Attach a copy of the information from the manufacturer

Test Results – Indicate test data and results

Similar Source Test Results – Attach a test result summary with a description of how this is a similar source

GRICalc – Attach a printout of results

Tanks Program – Attach a printout of results

AP-42 – Indicate AP-42 factor and publication date

Other – Attach a description of the method used

### Emission Unit Potential to Emit (PTE) (continued)

“Potential to Emit” (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design in the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| Greenhouse Gases (GHGs)                           |                            |                             |                          |
|---------------------------------------------------|----------------------------|-----------------------------|--------------------------|
| Pollutant (fill in blanks and add rows as needed) | Potential to Emit (lbs/hr) | Potential to Emit (tons/yr) | Basis for Determination* |
| Carbon dioxide (CO <sub>2</sub> )                 | 900000                     | 4000000                     | AP-42                    |
| Methane (CH <sub>4</sub> )                        | 5.7                        | 25                          | AP-42                    |
| Nitrous Oxide (N <sub>2</sub> O)                  | 1.15                       | 5                           | AP-42                    |
|                                                   |                            |                             |                          |
|                                                   |                            |                             |                          |

CO<sub>2</sub>e is NOT included or calculated in the GHG table.

| Other Regulated Pollutants**   |                            |                             |                          |
|--------------------------------|----------------------------|-----------------------------|--------------------------|
| Pollutant (add rows as needed) | Potential to Emit (lbs/hr) | Potential to Emit (tons/yr) | Basis for Determination* |
|                                |                            |                             |                          |
|                                |                            |                             |                          |
|                                |                            |                             |                          |
|                                |                            |                             |                          |
|                                |                            |                             |                          |
|                                |                            |                             |                          |

\*Indicate the method used for determining potential emissions for each pollutant. Attach a description and calculations, as appropriate, documenting the basis for the PTE for each pollutant.

If permit limits are used, no additional information is needed.

Manufacturer's Data – Attach a copy of the information from the manufacturer

Test Results – Indicate test data and results

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GRICalc – Attach a printout of results

Tanks Program – Attach a printout of results

AP-42 – Indicate AP-42 factor and publication date

Other – Attach a description of the method used

\*\*Other regulated pollutants include chlorine, fluorine, ammonia, hydrogen sulfide, sulfuric acid, etc.

### List all pollutants with applicable requirements. (add rows as needed)

| Pollutant                         | Requirement Cite* | Numeric Limit | Units      | Averaging Period       | Compliance | Method to Determine Compliance**   |
|-----------------------------------|-------------------|---------------|------------|------------------------|------------|------------------------------------|
| NO <sub>x</sub> - Nitrogen Oxides | Permit MD-123     | 0.2           | lb / MMBtu | 30 day rolling average | Yes        | Continuous Monitoring System (CEM) |

|                                                                      |               |      |            |                          |     |                                                                                                                                                                         |
|----------------------------------------------------------------------|---------------|------|------------|--------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NOx - Nitrogen Oxides                                                | Permit MD-123 | 0.7  | lb / MMBtu | 3 hour block average     | Yes | Continuous Monitoring System (CEM)                                                                                                                                      |
| NOx - Nitrogen Oxides                                                | Permit MD-123 | 1087 | lb /hr     | 30 day rolling average   | Yes | Continuous Monitoring System (CEM)                                                                                                                                      |
| NOx - Nitrogen Oxides                                                | Permit MD-123 | 4735 | TPY        | 12 month rolling average | Yes | Continuous Monitoring System (CEM)                                                                                                                                      |
| CO - Carbon Monoxide                                                 | Permit MD-123 | 100  | lb /hr     | monthly average          | Yes | Semiannual reference method testing                                                                                                                                     |
| Increase row height and adjust font size as necessary to fit content |               |      |            |                          |     |                                                                                                                                                                         |
|                                                                      |               |      |            |                          |     | This cell must be filled in for all pollutants with a limit. If Compliance Assurance Monitoring applies, you may state "CAM" and attach a CAM plan to your application. |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the limit during the term of the permit. This can include stack testing, operation or pollutant monitoring, or other mechanisms. State the frequency.

List applicable operational restrictions. (add rows as needed)

| Restriction Type | Requirement Cite* | Description of Restriction        | Compliance | Method to Determine Compliance** |
|------------------|-------------------|-----------------------------------|------------|----------------------------------|
| Fuel Restriction | Permit MD-123     | Sulfur % of coal limited to 1.5%. | Yes        | Monthly testing of coal.         |
|                  |                   |                                   |            |                                  |
|                  |                   |                                   |            |                                  |
|                  |                   |                                   |            |                                  |
|                  |                   |                                   |            |                                  |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the restriction during the term of the permit. This can include equipment monitoring, recordkeeping, or other mechanisms. State the frequency.

#### Control Equipment:

Does this emission unit employ emissions control equipment?

Yes

Yes - List all control equipment IDs associated with this emissions unit:

ESPI, CYCI, WSC1

Control equipment will have an id# that is used to cross-reference it among application forms. If an id# has never been designated for a piece of control equipment in the past, please assign a unique id# for it. See also the control equipment application forms.

#### Release Points:

List all release point IDs associated with this emissions unit:

RP1

Release points are where emissions pass to the air from the emission unit. There may be multiple points, including stacks, vents, and fugitives. Each release point will have an id# that is used to cross-reference it among application forms. If an id# has never been designated for a release point in the past, please assign a unique id# for it. See also the release point application forms.



Company \_\_\_\_\_ Facility: \_\_\_\_\_ EU ID: \_\_\_\_\_

**Air Quality Division - Title V Operating Permit Program**  
**Emission Unit Form: Non-Utility Boiler (BOL)**

*One copy of this Emission Unit (EU) form shall be filled out for each Non-Utility Boiler at the facility.*

AQD EU ID: \_\_\_\_\_ Company EU ID: \_\_\_\_\_ Operating Status: \_\_\_\_\_

Equipment Description: \_\_\_\_\_

Initial Construction Commence Date: \_\_\_\_\_ Initial Operation Commence Date: \_\_\_\_\_

Most Recent Construction/ Modification Commencement Date: \_\_\_\_\_

Most Recent Operation Commencement Date: \_\_\_\_\_

Boiler Type: \_\_\_\_\_ Boiler Classification: \_\_\_\_\_

Heat Input Rating (MMBtu/hr): \_\_\_\_\_

Primary Fuel Type: \_\_\_\_\_

Btu Content: \_\_\_\_\_ Units: \_\_\_\_\_ Fuel Sulfur Content: \_\_\_\_\_ Units: \_\_\_\_\_

Secondary Fuel Type: \_\_\_\_\_ *(leave blank if secondary fuel is not used)*

Btu Content: \_\_\_\_\_ Units: \_\_\_\_\_ Fuel Sulfur Content: \_\_\_\_\_ Units: \_\_\_\_\_

Is a different fuel is used for situations such as startup or curtailments? \_\_\_\_\_

If Yes, indicate the fuel and situations: \_\_\_\_\_

Maximum Operating Hour Schedule, hours/day: \_\_\_\_\_ Hours/year: \_\_\_\_\_

Is there an Alternative Operating Scenario (AOS) authorized for this emission unit that is not included in an AOS for multiple emission units, already attached to this application? \_\_\_\_\_

If Yes: attach the Emission Unit AOS. The attachment must include the SIC code(s) for processes and products associated with the AOS, as well as the requirements that apply during the AOS.

**SCC Codes:** List all Source Classification Code(s) (SCC) that describe the process(es) performed by the emission source (e.g., 1-02-002-04). The SCC code can be determined at the following web site:

<http://cfpub.epa.gov/webfire/index.cfm?action=fire.detailedSearch>

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**Federal and State Rule Applicability:**

New Source Performance Standards (NSPS, 40 CFR Part 60) that are applicable to the emission unit:

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National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61) that are applicable to the emission unit (these include asbestos, benzene, beryllium, mercury, and vinyl chloride):

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National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63) that are applicable to the emission unit:

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Company \_\_\_\_\_ Facility: \_\_\_\_\_

EU ID: \_\_\_\_\_

**Emission Unit Potential to Emit (PTE)**

“Potential to Emit” (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design in the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| Criteria Pollutants                                                      |                               |                                |                             |
|--------------------------------------------------------------------------|-------------------------------|--------------------------------|-----------------------------|
| Pollutant                                                                | Potential to Emit<br>(lbs/hr) | Potential to Emit<br>(tons/yr) | Basis for<br>Determination* |
| Carbon monoxide (CO)                                                     |                               |                                |                             |
| Nitrogen Oxides (NO <sub>x</sub> )                                       |                               |                                |                             |
| PM (Filt) – Primary PM, Filterable Portion Only                          |                               |                                |                             |
| PM <sub>10</sub> (FIL) - Filterable Portion Only                         |                               |                                |                             |
| PM <sub>10</sub> (includes Filterables + Condensibles) (PM<10 Microns)   |                               |                                |                             |
| PM <sub>2.5</sub> (FIL) - Filterable Portion Only                        |                               |                                |                             |
| PM <sub>2.5</sub> (includes Filterables + Condensibles) (PM<2.5 Microns) |                               |                                |                             |
| Sulfur dioxide (SO <sub>2</sub> )                                        |                               |                                |                             |
| Volatile organic compounds (VOC)                                         |                               |                                |                             |

| Hazardous Air Pollutants (HAPs) |                               |                                |                             |
|---------------------------------|-------------------------------|--------------------------------|-----------------------------|
| Pollutant (add rows as needed)  | Potential to Emit<br>(lbs/hr) | Potential to Emit<br>(tons/yr) | Basis for<br>Determination* |
| Mercury                         |                               |                                |                             |
|                                 |                               |                                |                             |
|                                 |                               |                                |                             |
|                                 |                               |                                |                             |
|                                 |                               |                                |                             |
|                                 |                               |                                |                             |

\*Indicate the method used for determining potential emissions for each pollutant. Attach a description and calculations, as appropriate, documenting the basis for the PTE for each pollutant.

*If permit limits are used, no additional information is needed.*

*Manufacturer's Data – Attach a copy of the information from the manufacturer*

*Test Results – Indicate test data and results*

*Similar Source Test Results – Attach a test result summary with a description of how this is a similar source*

*GRICalc – Attach a printout of results*

*Tanks Program – Attach a printout of results*

*AP-42 – Indicate AP-42 factor and publication date*

*Other – Attach a description of the method used*

Company \_\_\_\_\_ Facility: \_\_\_\_\_

EU ID: \_\_\_\_\_

**Emission Unit Potential to Emit (PTE) (continued)**

“Potential to Emit” (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design in the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| <b>Greenhouse Gases (GHGs)</b>                           |                                   |                                    |                                 |
|----------------------------------------------------------|-----------------------------------|------------------------------------|---------------------------------|
| <b>Pollutant (fill in blanks and add rows as needed)</b> | <b>Potential to Emit (lbs/hr)</b> | <b>Potential to Emit (tons/yr)</b> | <b>Basis for Determination*</b> |
| Carbon dioxide (CO <sub>2</sub> )                        |                                   |                                    |                                 |
| Methane (CH <sub>4</sub> )                               |                                   |                                    |                                 |
| Nitrous Oxide (N <sub>2</sub> O)                         |                                   |                                    |                                 |
|                                                          |                                   |                                    |                                 |
|                                                          |                                   |                                    |                                 |

| <b>Other Regulated Pollutants**</b>   |                                   |                                    |                                 |
|---------------------------------------|-----------------------------------|------------------------------------|---------------------------------|
| <b>Pollutant (add rows as needed)</b> | <b>Potential to Emit (lbs/hr)</b> | <b>Potential to Emit (tons/yr)</b> | <b>Basis for Determination*</b> |
|                                       |                                   |                                    |                                 |
|                                       |                                   |                                    |                                 |
|                                       |                                   |                                    |                                 |
|                                       |                                   |                                    |                                 |
|                                       |                                   |                                    |                                 |
|                                       |                                   |                                    |                                 |

\*Indicate the method used for determining potential emissions for each pollutant. Attach a description and calculations, as appropriate, documenting the basis for the PTE for each pollutant.

If permit limits are used, no additional information is needed.

Manufacturer's Data – Attach a copy of the information from the manufacturer

Test Results – Indicate test data and results

Similar Source Test Results – Attach a test result summary with a description of how this is a similar source

GRICalc – Attach a printout of results

Tanks Program – Attach a printout of results

AP-42 – Indicate AP-42 factor and publication date

Other – Attach a description of the method used

\*\*Other regulated pollutants include chlorine, fluorine, ammonia, hydrogen sulfide, sulfuric acid, etc.

Company \_\_\_\_\_ Facility: \_\_\_\_\_

EU ID: \_\_\_\_\_

List all pollutants with applicable requirements. (add rows as needed)

| Pollutant | Requirement Cite* | Numeric Limit | Units | Averaging Period | Compliance | Method to Determine Compliance** |
|-----------|-------------------|---------------|-------|------------------|------------|----------------------------------|
|           |                   |               |       |                  |            |                                  |
|           |                   |               |       |                  |            |                                  |
|           |                   |               |       |                  |            |                                  |
|           |                   |               |       |                  |            |                                  |
|           |                   |               |       |                  |            |                                  |
|           |                   |               |       |                  |            |                                  |
|           |                   |               |       |                  |            |                                  |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the limit during the term of the permit. This can include stack testing, operation or pollutant monitoring, or other mechanisms. State the frequency.

List applicable operational restrictions. (add rows as needed)

| Restriction Type | Requirement Cite* | Description of Restriction | Compliance | Method to Determine Compliance** |
|------------------|-------------------|----------------------------|------------|----------------------------------|
|                  |                   |                            |            |                                  |
|                  |                   |                            |            |                                  |
|                  |                   |                            |            |                                  |
|                  |                   |                            |            |                                  |
|                  |                   |                            |            |                                  |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the restriction during the term of the permit. This can include equipment monitoring, recordkeeping, or other mechanisms. State the frequency.

**Control Equipment:**

Does this emission unit employ emissions control equipment? \_\_\_\_\_

Yes - List all control device IDs associated with this emissions unit: \_\_\_\_\_

**Release Points:**

List all release point IDs associated with this emissions unit: \_\_\_\_\_

Company: Acme CorpFacility: Windy GulchEU ID: E23

## Air Quality Division - Title V Operating Permit Program

### Emission Unit Form: **Engine (ENG)**

*One copy of this Emission Unit (EU) form shall be filled out for each Engine at the facility.*

AQD EU ID: E23

the id # used in AQD permits ↑

Company EU ID: C-802A

the id # the facility uses ↑

Operating Status: Operating

The "inactive" choice should be used only rarely. Contact AQD if you have questions.

Equipment Description:

Caterpillar G3612LE

↑ the text will wrap so use as much space as you need and increase the row height as necessary

Initial Construction Commence Date: 12/11/2010Initial Operation Commence Date: 12/20/2010

↑ the dates associated with the first time the unit was constructed and started up at this facility, not subsequent like-kind replacements or modifications to the unit.

"Construction" means fabrication, erection, or installation of a source. "Commenced" means when the applicant either had (i) begun, or caused to begin, a continuous program of physical on-site construction or modification of the facility or (ii) entered into binding agreements or contractual obligations, which could not be canceled or modified without substantial loss to the applicant, to undertake a program of construction or modification of the facility to be completed within a reasonable time.

Most Recent Construction/Modification Commencement Date:

12/11/2010

← if the unit has been modified since initial construction, the dates associated with the subsequent startup.

Most Recent Operation Commencement Date:

12/20/2010

If the unit has not been ← modified these dates will be the same as the initial dates above

"Modification" means any physical change in, or change in the method of operation of, a source which increases the amount of any air pollutant emitted to which any state standard applies, or results in the emission of an air pollutant not previously emitted. For a source subject to a New Source Performance Standard (NSPS), modification is defined under WAQSR Chapter 5, Section 2(k).

Engine Type: 2 stroke Lean BurnType of service: Compressor engine

Engine definitions can be found in 40 CFR 63 Subpart ZZZZ, §63.6675

Air Fuel Ratio Control Installed? YesName Plate Rating: 2095Units: hpSite Rating: 1800Units: hp

Name plate rating is the rating (typically in hp) of the engine as manufactured. Site rating is the actual rating at the facility.

Primary Fuel Type: Pipeline Grade Natural GasBtu Content: 1020Units: Btu/scfFuel Sulfur Content: 0.003 Units: %Secondary Fuel Type: Field Gas (leave blank if secondary fuel is not used)Btu Content: 800Units: Btu/scfFuel Sulfur Content: 0.05 Units: %Is a different fuel is used for situations such as startup or curtailments? YesIf Yes, indicate the fuel and situations: If pipeline gas is unavailable, field gas is used

Company: Acme Corp Facility: Windy Gulch EU ID: E23

Current Serial Number: BKE00665

**For the engine with this serial number:**

Model Name & Number: G3612LE Manufacturer Name: Caterpillar

Engine Order Date: 6/6/2013 Engine Manufacture Date: 7/7/2013

Construction/Installation Commence Date: 12/11/2013 Operation/Startup Commence Date: 12/20/2013

↑ this will be the same as the initial dates at the top of the page if there have been no modifications or like-kind replacements of the unit; ↑ if you have modified your engine or if there has been a like-kind replacement, these dates will be different than those at the top of the page.

Maximum Operating Hour Schedule, hours/day: 24 Hours/year: 1000

Is there an Alternative Operating Scenario (AOS) authorized for this emission unit that is not included in an AOS for multiple emission units, already attached to this application? No

The alternative operating scenario must already be permitted under a WAQSR Ch 6, Sec 2 permit to ensure compliance with standards and regulations including ambient air quality standards and maximum allowable increments of deterioration.

If Yes: attach the Emission Unit AOS. The attachment must include the SIC code(s) for processes and products associated with the AOS, as well as the requirements that apply during the AOS.

**SCC Codes:** List all Source Classification Code(s) (SCC) that describe the process(es) performed by the emission source (e.g., 1-02-002-04). The SCC code can be determined at the following web site:

<http://cfpub.epa.gov/webfire/index.cfm?action=fire.detailedSearch>

2-02-222-123

An additional place to assist you to determine SCC codes is <http://www.mass.gov/eea/agencies/massdep/service/online/sccs-emission-factors-and-naics-codes.html>; a list of the codes can be found at <http://www.nj.gov/dep/aqm/es/scc.pdf>

### Emission Unit Potential to Emit (PTE)

“Potential to Emit” (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design if the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| Criteria Pollutants                                                      |                            |                                   |                          |
|--------------------------------------------------------------------------|----------------------------|-----------------------------------|--------------------------|
| Pollutant                                                                | Potential to Emit (lbs/hr) | Potential to Emit (short tons/yr) | Basis for Determination* |
| Carbon monoxide (CO)                                                     | 4.5                        | 19.6                              | Permit Limit             |
| Nitrogen Oxides (NOx)                                                    | 1.2                        | 20.5                              | Permit Limit             |
| PM (Filt) – Primary PM, Filterable Portion Only                          |                            |                                   |                          |
| PM <sub>10</sub> (FIL) - Filterable Portion Only                         |                            |                                   |                          |
| PM <sub>10</sub> (includes Filterables + Condensibles) (PM<10 Microns)   |                            |                                   |                          |
| PM <sub>2.5</sub> (FIL) - Filterable Portion Only                        |                            |                                   |                          |
| PM <sub>2.5</sub> (includes Filterables + Condensibles) (PM<2.5 Microns) |                            |                                   |                          |
| Sulfur dioxide (SO <sub>2</sub> )                                        | 0.1                        | 1                                 | AP-42                    |
| Volatile organic compounds (VOC)                                         | 1.6                        | 7                                 | Permit Limit             |

Leave cells blank ↑↓ if the pollutant is not emitted. ↑↓

### Hazardous Air Pollutants (HAPs)

Company: Acme CorpFacility: Windy GulchEU ID: E23

| Pollutant (add rows as needed) | Potential to Emit<br>(lbs/hr) | Potential to Emit<br>(short tons/yr) | Basis for<br>Determination* |
|--------------------------------|-------------------------------|--------------------------------------|-----------------------------|
| Formaldehyde                   | 0.22                          | 0.95                                 | Permit Limit                |
|                                |                               |                                      |                             |
|                                |                               |                                      |                             |
|                                |                               |                                      |                             |
|                                |                               |                                      |                             |

\*Indicate the method used for determining potential emissions for each pollutant. **Attach a description and calculations**, as appropriate, documenting the basis for the PTE for each pollutant.

*If permit limits are used, no additional information is needed.*

*Manufacturer's Data – Attach a copy of the information from the manufacturer*

*Test Results – Indicate test data and results*

*Similar Source Test Results – Attach a test result summary with a description of how this is a similar source*

*GRICalc – Attach a printout of results*

*Tanks Program – Attach a printout of results*

*AP-42 – Indicate AP-42 factor and publication date*

*Other – Attach a description of the method used*

If permit or NSPS/NESHAP limits are used as the basis for determination, these limits shall also be included in the table near the end of this form  
"List all pollutants with applicable requirements."

Company: Acme CorpFacility: Windy GulchEU ID: E23**Emission Unit Potential to Emit (PTE) (continued)**

"Potential to Emit" (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design in the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| Greenhouse Gases (GHGs)                           |                            |                                   |                          |
|---------------------------------------------------|----------------------------|-----------------------------------|--------------------------|
| Pollutant (fill in blanks and add rows as needed) | Potential to Emit (lbs/hr) | Potential to Emit (short tons/yr) | Basis for Determination* |
| Carbon dioxide (CO <sub>2</sub> )                 | 125                        | 10,495                            | AP-42                    |
| Methane (CH <sub>4</sub> )                        | 25                         | 2,522                             | AP-42                    |
| Nitrous Oxide (N <sub>2</sub> O)                  | 3.5                        | 3,500                             | AP-42                    |
|                                                   |                            |                                   |                          |

CO<sub>2</sub>e is NOT included or calculated in the GHG table.

| Other Regulated Pollutants**   |                            |                                   |                          |
|--------------------------------|----------------------------|-----------------------------------|--------------------------|
| Pollutant (add rows as needed) | Potential to Emit (lbs/hr) | Potential to Emit (short tons/yr) | Basis for Determination* |
| Methylamine                    | 0.0025                     | 0.01                              | AP-42                    |
|                                |                            |                                   |                          |
|                                |                            |                                   |                          |

\*Indicate the method used for determining potential emissions for each pollutant. **Attach a description and calculations**, as appropriate, documenting the basis for the PTE for each pollutant.

If permit limits are used, no additional information is needed.

Manufacturer's Data – Attach a copy of the information from the manufacturer

Test Results – Indicate test data and results

Similar Source Test Results – Attach a test result summary with a description of how this is a similar source

GRICalc – Attach a printout of results

Tanks Program – Attach a printout of results

AP-42 – Indicate AP-42 factor and publication date

Other – Attach a description of the method used

\*\*Other regulated pollutants include chlorine, fluorine, ammonia, hydrogen sulfide, sulfuric acid, etc.

If permit or NSPS/NESHAP limits are used as the basis for determination, these limits shall also be included in the table near the end of this form "List all pollutants with applicable requirements."

**Federal and State Rule Applicability:**

New Source Performance Standards (NSPS, 40 CFR Part 60) that are applicable to the emission unit:

JJJJ For engines, depending on the date the engine was ordered, this is typically JJJJ or IIII

National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61) that are applicable to the emission unit (these include asbestos, benzene, beryllium, mercury, and vinyl chloride):

none For engines, this is usually "new"

National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63) that are applicable to the emission unit:

ZZZZ Subpart ZZZZ applies to most engines

Company: Acme CorpFacility: Windy GulchEU ID: E23**List all pollutants with applicable requirements.** (add rows as needed)

Only include pollutants with limits, such as from construction permits or federal/state regulations

| Pollutant                                                         | Requirement Cite* | Numeric Limit | Units | Averaging Period | In Compliance? | Method to Determine Compliance**                                                                                                                                       |
|-------------------------------------------------------------------|-------------------|---------------|-------|------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CO - Carbon Monoxide                                              | MD-978            | 4.5           | lb/hr | none             | Yes            | semiannual reference method test                                                                                                                                       |
| Formaldehyde                                                      | MD-978            | 0.22          | lb/hr | none             | Yes            | annual reference method test                                                                                                                                           |
| Increase row height and adjust font size as needed to fit content |                   |               |       |                  |                |                                                                                                                                                                        |
|                                                                   |                   |               |       |                  |                | This cell must be filled in for all pollutants with a limit. If Compliance Assurance Monitoring applies, you may state "CAM" and attach a CAM plan to your application |
|                                                                   |                   |               |       |                  |                |                                                                                                                                                                        |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the limit during the term of the permit. This can include stack testing, operation or pollutant monitoring, or other mechanisms. State the frequency.

**List applicable operational restrictions.** (add rows as needed)

| Restriction Type                                                  | Requirement Cite* | Description of Restriction | In Compliance? | Method to Determine Compliance** |
|-------------------------------------------------------------------|-------------------|----------------------------|----------------|----------------------------------|
| Operational Hours                                                 | CT-204            | Limited to 1000 hours/year | Yes            | Hours meter on engine            |
| Increase row height and adjust font size as needed to fit content |                   |                            |                |                                  |
| Typical operating restrictions include those for operating hours  |                   |                            |                |                                  |
|                                                                   |                   |                            |                |                                  |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the restriction during the term of the permit. This can include equipment monitoring, recordkeeping, or other mechanisms. State the frequency.

**Control Equipment:**

Control equipment is equipment, other than equipment that is inherent to the process, which is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. A common type of engine control is a catalyst. Determining whether equipment is a control device or process equipment is not always straightforward; contact the Division for assistance if you have questions.

Does this emission unit employ emissions control equipment? Yes

Yes - List all control equipment IDs associated with this emissions unit:

CAT24

Control equipment will have an id# that is used to cross-reference it among application forms. If an id# has never been designated for a piece of control equipment in the past, please assign a unique id# for it. See also the control equipment application forms.

**Release Points:**

List all release point IDs associated with this emissions unit:

RP14

Release points are where emissions pass to the air from the emission unit. There may be multiple points, including stacks, vents, and fugitives. Each release point will have an id# that is used to cross-reference it among application forms. If an id# has never been designated for a release point in the past, please assign a unique id# for it. See also the release point application forms.



Company: \_\_\_\_\_ Facility: \_\_\_\_\_ EU ID: \_\_\_\_\_



**Air Quality Division - Title V Operating Permit Program**  
**Emission Unit Form: Engine (ENG)**

*One copy of this Emission Unit (EU) form shall be filled out for each Engine at the facility.*

AQD EU ID: \_\_\_\_\_ Company EU ID: \_\_\_\_\_ Operating Status: \_\_\_\_\_

Equipment Description: \_\_\_\_\_

Initial Construction Commence Date: \_\_\_\_\_ Initial Operation Commence Date: \_\_\_\_\_

Most Recent Construction/Modification Commencement Date: \_\_\_\_\_

Most Recent Operation Commencement Date: \_\_\_\_\_

Engine Type: \_\_\_\_\_ Type of service: \_\_\_\_\_

Air Fuel Ratio Control Installed? \_\_\_\_\_

Name Plate Rating: \_\_\_\_\_ Units: \_\_\_\_\_ Site Rating: \_\_\_\_\_ Units: \_\_\_\_\_

Primary Fuel Type: \_\_\_\_\_

Btu Content: \_\_\_\_\_ Units: \_\_\_\_\_ Fuel Sulfur Content: \_\_\_\_\_ Units: \_\_\_\_\_

Secondary Fuel Type: \_\_\_\_\_ (leave blank if secondary fuel is not used)

Btu Content: \_\_\_\_\_ Units: \_\_\_\_\_ Fuel Sulfur Content: \_\_\_\_\_ Units: \_\_\_\_\_

Is a different fuel is used for situations such as startup or curtailments? \_\_\_\_\_

If Yes, indicate the fuel and situations: \_\_\_\_\_

Current Serial Number: \_\_\_\_\_

***For the engine with this serial number:***

Model Name & Number: \_\_\_\_\_ Manufacturer Name: \_\_\_\_\_

Engine Order Date: \_\_\_\_\_ Engine Manufacture Date: \_\_\_\_\_

Construction/Installation Commence Date: \_\_\_\_\_ Operation/Startup Commence Date: \_\_\_\_\_

Maximum Operating Hour Schedule, hours/day: \_\_\_\_\_ Hours/year: \_\_\_\_\_

Is there an Alternative Operating Scenario (AOS) authorized for this emission unit that is not included in an AOS for multiple emission units, already attached to this application? \_\_\_\_\_

If Yes: attach the Emission Unit AOS. The attachment must include the SIC code(s) for processes and products associated with the AOS, as well as the requirements that apply during the AOS.

**SCC Codes:** List all Source Classification Code(s) (SCC) that describe the process(es) performed by the emission source (e.g., 1-02-002-04). The SCC code can be determined at the following web site:

<http://cfpub.epa.gov/webfire/index.cfm?action=fire.detailedSearch>

Company: \_\_\_\_\_

Facility: \_\_\_\_\_

EU ID: \_\_\_\_\_

**Emission Unit Potential to Emit (PTE)**

“Potential to Emit” (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design in the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| Criteria Pollutants                                                      |                            |                                   |                          |
|--------------------------------------------------------------------------|----------------------------|-----------------------------------|--------------------------|
| Pollutant                                                                | Potential to Emit (lbs/hr) | Potential to Emit (short tons/yr) | Basis for Determination* |
| Carbon monoxide (CO)                                                     |                            |                                   |                          |
| Nitrogen Oxides (NOx)                                                    |                            |                                   |                          |
| PM (Filt) – Primary PM, Filterable Portion Only                          |                            |                                   |                          |
| PM <sub>10</sub> (FIL) - Filterable Portion Only                         |                            |                                   |                          |
| PM <sub>10</sub> (includes Filterables + Condensibles) (PM<10 Microns)   |                            |                                   |                          |
| PM <sub>2.5</sub> (FIL) - Filterable Portion Only                        |                            |                                   |                          |
| PM <sub>2.5</sub> (includes Filterables + Condensibles) (PM<2.5 Microns) |                            |                                   |                          |
| Sulfur dioxide (SO <sub>2</sub> )                                        |                            |                                   |                          |
| Volatile organic compounds (VOC)                                         |                            |                                   |                          |

| Hazardous Air Pollutants (HAPs) |                            |                                   |                          |
|---------------------------------|----------------------------|-----------------------------------|--------------------------|
| Pollutant (add rows as needed)  | Potential to Emit (lbs/hr) | Potential to Emit (short tons/yr) | Basis for Determination* |
| Formaldehyde                    |                            |                                   |                          |
|                                 |                            |                                   |                          |
|                                 |                            |                                   |                          |
|                                 |                            |                                   |                          |
|                                 |                            |                                   |                          |
|                                 |                            |                                   |                          |

\*Indicate the method used for determining potential emissions for each pollutant. **Attach a description and calculations**, as appropriate, documenting the basis for the PTE for each pollutant.

*If permit limits are used, no additional information is needed.*

*Manufacturer's Data – Attach a copy of the information from the manufacturer*

*Test Results – Indicate test data and results*

*Similar Source Test Results – Attach a test result summary with a description of how this is a similar source*

*GRICalc – Attach a printout of results*

*Tanks Program – Attach a printout of results*

*AP-42 – Indicate AP-42 factor and publication date*

*Other – Attach a description of the method used*

Company: \_\_\_\_\_ Facility: \_\_\_\_\_ EU ID: \_\_\_\_\_

### Emission Unit Potential to Emit (PTE) (continued)

“Potential to Emit” (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours or on the type or amount of material combusted, stored or processed, shall be treated as a part of its design in the limitation is enforceable by the EPA and the Division.

The following tables request information that is needed to determine the applicable requirements and the compliance status of this emission unit with those requirements.

| Greenhouse Gases (GHGs)                           |                            |                                   |                          |
|---------------------------------------------------|----------------------------|-----------------------------------|--------------------------|
| Pollutant (fill in blanks and add rows as needed) | Potential to Emit (lbs/hr) | Potential to Emit (short tons/yr) | Basis for Determination* |
| Carbon dioxide (CO <sub>2</sub> )                 |                            |                                   |                          |
| Methane (CH <sub>4</sub> )                        |                            |                                   |                          |
| Nitrous Oxide (N <sub>2</sub> O)                  |                            |                                   |                          |
|                                                   |                            |                                   |                          |

| Other Regulated Pollutants**   |                            |                                   |                          |
|--------------------------------|----------------------------|-----------------------------------|--------------------------|
| Pollutant (add rows as needed) | Potential to Emit (lbs/hr) | Potential to Emit (short tons/yr) | Basis for Determination* |
|                                |                            |                                   |                          |
|                                |                            |                                   |                          |
|                                |                            |                                   |                          |

\*Indicate the method used for determining potential emissions for each pollutant. **Attach a description and calculations**, as appropriate, documenting the basis for the PTE for each pollutant.

*If permit limits are used, no additional information is needed.*

*Manufacturer's Data – Attach a copy of the information from the manufacturer*

*Test Results – Indicate test data and results*

*Similar Source Test Results – Attach a test result summary with a description of how this is a similar source*

*GRICalc – Attach a printout of results*

*Tanks Program – Attach a printout of results*

*AP-42 – Indicate AP-42 factor and publication date*

*Other – Attach a description of the method used*

\*\*Other regulated pollutants include chlorine, fluorine, ammonia, hydrogen sulfide, sulfuric acid, etc.

### Federal and State Rule Applicability:

New Source Performance Standards (NSPS, 40 CFR Part 60) that are applicable to the emission unit:

---

National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61) that are applicable to the emission unit (these include asbestos, benzene, beryllium, mercury, and vinyl chloride):

---

National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63) that are applicable to the emission unit:

---

Company: \_\_\_\_\_ Facility: \_\_\_\_\_

EU ID: \_\_\_\_\_

List all pollutants with applicable requirements. (add rows as needed)

| Pollutant | Requirement Cite* | Numeric Limit | Units | Averaging Period | In Compliance? | Method to Determine Compliance** |
|-----------|-------------------|---------------|-------|------------------|----------------|----------------------------------|
|           |                   |               |       |                  |                |                                  |
|           |                   |               |       |                  |                |                                  |
|           |                   |               |       |                  |                |                                  |
|           |                   |               |       |                  |                |                                  |
|           |                   |               |       |                  |                |                                  |
|           |                   |               |       |                  |                |                                  |
|           |                   |               |       |                  |                |                                  |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the limit during the term of the permit. This can include stack testing, operation or pollutant monitoring, or other mechanisms. State the frequency.

List applicable operational restrictions. (add rows as needed)

| Restriction Type | Requirement Cite* | Description of Restriction | In Compliance? | Method to Determine Compliance** |
|------------------|-------------------|----------------------------|----------------|----------------------------------|
|                  |                   |                            |                |                                  |
|                  |                   |                            |                |                                  |
|                  |                   |                            |                |                                  |
|                  |                   |                            |                |                                  |

\* - Cite the basis for the requirement, such as an NSR construction permit or waiver (ie, MD-444), or a federal NSPS or NESHAP (ie, 40 CFR Part 60, 61, or 63 Subpart AAA)

\*\* - Describe how you intend to demonstrate compliance with the restriction during the term of the permit. This can include equipment monitoring, recordkeeping, or other mechanisms. State the frequency.

### Control Equipment:

Does this emission unit employ emissions control equipment? \_\_\_\_\_

Yes - List all control device IDs associated with this emissions unit: \_\_\_\_\_

\_\_\_\_\_

### Release Points:

List all release point IDs associated with this emissions unit: \_\_\_\_\_

\_\_\_\_\_

| <b>County</b> | <b>Zip Code</b> | <b>County Code</b> |
|---------------|-----------------|--------------------|
| Albany        | 82070           | 56001              |
| Big Horn      | 82410           | 56003              |
| Campbell      | 82716           | 56005              |
| Carbon        | 82301           | 56007              |
| Converse      | 82633           | 56009              |
| Crook         | 82729           | 56011              |
| Fremont       | 82520           | 56013              |
| Goshen        | 82240           | 56015              |
| Hot Springs   | 82430           | 56017              |
| Johnson       | 82834           | 56019              |
| Laramie       | 82001           | 56021              |
| Lincoln       | 83101           | 56023              |
| Natrona       | 82601           | 56025              |
| Niobrara      | 82225           | 56027              |
| Park          | 82414           | 56029              |
| Platte        | 82201           | 56031              |
| Sheridan      | 82801           | 56033              |
| Sublette      | 82941           | 56035              |
| Sweetwater    | 82935           | 56037              |
| Teton         | 83001           | 56039              |
| Uinta         | 82930           | 56041              |
| Washakie      | 82401           | 56043              |
| Weston        | 82701           | 56045              |

| Description                        | SCC      | NAICS  | EPA Area SCCs |
|------------------------------------|----------|--------|---------------|
| Oil & Gas Extraction               |          | 211111 |               |
| Water Disposal (contract services) |          | 213112 |               |
| Oil & Gas Support Activities       |          | 213112 |               |
| Oil Well Fugitives                 | 31000101 |        | 2310010700    |
| Oil Well Separator Heater          | 31000107 |        | 2310010100    |
| Gas Well Separator Heater          | 31000107 |        | 2310021100    |
| Gas Well Fugitives                 | 31000220 |        | 2310020700    |
| Dehydration Unit                   | 31000227 | 211111 | 2310021400    |
| Dehydrator Reboiler                | 31000228 | 211111 |               |
| TEG Dehydration Unit               | 31000301 |        |               |
| TEG Dehydrator Reboiler            | 31000302 |        |               |
| Tank Heaters                       | 31000404 |        | 2310010100    |
| Line Heaters                       | 31000404 |        | 2310021100    |
| Space Heater, Distillate Fuel      | 10500105 |        |               |
| Space Heater, Propane              | 10500110 |        |               |
| Other Heaters                      | 30600199 |        |               |
| Evaporation Ponds                  | 31000504 |        |               |
| Condensate Tanks                   | 40400311 | 211111 | 2310021010    |
| Oil Tanks                          | 40400312 | 211111 | 2310010200    |
| Chemical Tanks                     | 40400314 |        |               |
| Water Tanks                        | 40400315 |        |               |
| Gas Well Truck Loading             | 40600132 |        | 2310021030    |
| Oil Well Truck Loading             | 40600132 |        | 2310011201    |
| Pneumatic Controllers Low Bleed    | 31000324 |        | 2310000300    |
| Pneumatic Controllers Hi Bleed     | 31000325 |        |               |
| Well Blowdowns                     | 30600402 |        | 2310021603    |
| Tank Flare                         | 31000160 |        |               |
| Dehy Flare                         | 31000205 |        |               |
| Completions, Gas Well              |          |        | 2310121700    |
| Completions, Oil Well              |          |        | 2310111700    |
| Pneumatic Pumps, Gas Well          |          |        | 2310121401    |
| Pneumatic Controllers, Gas Well    |          |        | 2310021300    |
| Pneumatic Pumps, Oil Well          |          |        | 2310111401    |
| Pneumatic Controllers, Oil Well    |          |        | 2310010300    |
| Drill Rigs                         |          |        | 2310000220    |
| Workover Rigs                      |          |        | 2310000230    |
| Hydraulic Fracturing Engines       |          |        | 2310000660    |
| On-Road Mobile                     |          |        | 2230072330    |
| Non-Road Mobile                    |          |        | 2270002081    |

| Description                                      | SCC      | NAICS       | EPA Area SCCs |
|--------------------------------------------------|----------|-------------|---------------|
| Gas Compression or Storage                       |          | 486210      |               |
| Diesel Engine                                    | 20200102 |             | 2310000330    |
| Gas Turbine                                      | 20200201 |             | 2310000330    |
| Gas Reciprocating                                | 20200202 |             | 2310000330    |
| 2-Cycle Rich Burn Engine                         | 20200251 |             | 2310000330    |
| 2-Cycle Lean Burn Engine                         | 20200252 |             | 2310000330    |
| 4-Cycle Rich Burn Engine                         | 20200253 |             | 2310000330    |
| 4-Cycle Lean Burn Engine                         | 20200254 |             | 2310000330    |
| Bulk Tank Facilities (crude oil)                 | 40400332 | 424710      |               |
| Bulk Tank Facilities (refined products)          | 40400149 | 424710      |               |
| Bulk Tank Facilities (fugitives)                 | 40400151 | 424710      |               |
| Pipeline Transportation (crude oil)              |          | 486110      |               |
| Pipeline Transportation (natural gas)            |          | 486210      |               |
| Pipeline Transportation (refined products)       |          | 486910      |               |
| Sour Gas Plant                                   |          | 324199      |               |
| Sweet Gas Plant                                  |          | 324199      |               |
| Industrial Boilers - Oil (<10 MMBtu/hr)          | 10200503 |             |               |
| Industrial Boilers - Oil (10 to 100 MMBtu/hr)    | 10200502 |             |               |
| Industrial Boilers - Oil (>100 MMBtu/hr)         | 10200506 |             |               |
| Industrial Boilers - Gas (<10 MMBtu/hr)          | 10200603 |             |               |
| Industrial Boilers - Gas (10 to 100 MMBtu/hr)    | 10200602 |             |               |
| Industrial Boilers - Gas (>100 MMBtu/hr)         | 10200601 |             |               |
| Pipeline Venting                                 | 40600502 | 486210 (NG) |               |
| Blowdown System w/VRU System with Flaring        | 30600401 |             |               |
| Blowdown System w/out Controls                   | 30600402 |             |               |
| Used Oil Tanks                                   | 30630006 |             |               |
| Lube Oil Tanks                                   | 40400313 |             |               |
| Specialty Chemical Tanks                         | 40400313 |             |               |
| Diesel Storage Tanks                             | 40400316 |             |               |
| Gasoline Storage Tanks (above ground)            | 42505101 |             |               |
| Methanol Storage Tanks                           | 40700816 |             |               |
| Fugitives                                        | 31088811 |             |               |
| Flares (Gas Plants & Crude Oil Refineries)       | 30600903 |             |               |
| Incinerators (Gas Plants & Crude Oil Refineries) | 30609904 |             |               |
| Ethylene Glycol Storage Tanks                    | 40705604 |             |               |
| Diethylene Glycol Storage Tanks                  | 40705210 |             |               |
| Triethylene Glycol Storage Tanks                 | 40705218 |             |               |
| Process Heaters (Oil)                            | 30600103 |             |               |
| Process Heaters (Natural Gas)                    | 30600105 |             |               |
| Process Heaters (Process/Fuel Gas)               | 30600106 |             |               |

| <b>Description</b>                | <b>SCC</b> | <b>NAICS</b> |
|-----------------------------------|------------|--------------|
| Limestone Mining                  |            | 212312       |
| Granite Mining                    |            | 212313       |
| Other Crushed Stone Mining        |            | 212319       |
| Sand & Gravel Mining              |            | 212321       |
| Non-Coal Support Activities       |            | 213115       |
| Bituminous & Lignite Surface Coal |            | 212111       |
| Bituminous Underground Coal       |            | 212112       |
| Anthracite Coal                   |            | 212113       |
| Coal Support Activities           |            | 213113       |
| Crusher                           | 30502001   |              |
| Screen                            | 30502014   |              |
| Material Conveyors                | 30502006   |              |
| Diesel Generator                  | 20200102   |              |
| Asphalt Hot Plant                 | 30500205   | 324121       |
| Concrete Batch Plant              | 30501109   | 327320       |
| Cement Silo                       | 30501107   |              |
| Stockpiling                       | 30501110   |              |
| Rock Unloading                    | 30501121   |              |
| Sand Unloading                    | 30501122   |              |
| Exposed Ground                    | 30502007   |              |
| Haul Roads (Coal)                 | 30501090   |              |

| Source/Activity                        | Controlled/Uncontrolled | Pollutant                         | H (ft) | T (°F) | V (ft/sec) | D (ft) |
|----------------------------------------|-------------------------|-----------------------------------|--------|--------|------------|--------|
| Wellhead Compression                   | Uncontrolled            | NOx, CO, VOC, HCHO, PM            | 12     | 1,045  | 88         | 0.33   |
| Process Heaters                        | Uncontrolled            | NOx, CO, VOC, HCHO, HONO          | 12     | 500    | 7          | 0.33   |
| Glycol Dehy Unit                       | Uncontrolled            | SPECIATED VOC                     | 4      | 212    | 0.2        | 0.5    |
| Dehy/Flashing/Pneumatics (non-JPDA)    | Controlled              | NOx, CO, SPECIATED VOC, HONO      | 30     | 530    | 7          | 1      |
| Storage Tank/Flashing (non-JPDA)       | Uncontrolled            | SPECIATED VOC                     | 20     | 70     | 0.03       | 0.33   |
| Storage Tank/Flashing (JPDA)           | Uncontrolled            | SPECIATED VOC                     | 20     | 70     | 0.44       | 0.33   |
| Pneumatic Pumps                        | Uncontrolled            | SPECIATED VOC                     | 3      | 70     | 2          | 0.04   |
| Truck Loading                          | Uncontrolled            | VOC                               | 20     | 50     | 0.02       | 0.33   |
| Fugitives                              | Uncontrolled            | VOC, HCOH                         | 10     | 70     | 2          | 0.04   |
| Well Completion Flaring                | Controlled              | NOx, CO, VOC, BTEX, HONO          | 1      | 700    | 20         | 0.5    |
| Well Venting                           | Uncontrolled            | SPECIATED VOC                     | 20     | 70     | 67         | 0.33   |
| Well Frac/Completion (Other Equipment) | Uncontrolled            | NOx, CO, VOC, BTEX, SO2, PM, HONO | 14     | 831    | 185        | 0.5    |
| Dehy/Flashing/Pneumatics (JPDA only)   | Controlled              | NOx, CO, SPECIATED VOC, HONO      | 30     | 1,360  | 10         | 2.67   |



| Make            | Model        | HP        | Turbine/Rich/Lean/Generator | SCC      | Fuel   |
|-----------------|--------------|-----------|-----------------------------|----------|--------|
| Caterpillar     | 3116         | 160       | Generator                   | 20200102 | Diesel |
| Caterpillar     | 3406         | 470       | Generator                   | 20200102 | Diesel |
| Caterpillar     | 3412         | 805       | Generator                   | 20200102 | Diesel |
| Caterpillar     | 3516         | 1729      | Generator                   | 20200102 | Diesel |
| Caterpillar     | C900         | 275       | Generator                   | 20200102 | Diesel |
| Deutz           | D914L04      | 78        | Generator                   | 20200102 | Diesel |
| Deutz           | TCG 2015     | 322       | Rich Burn 4-cycle           | 20200253 | Gas    |
| Deutz           | TBG 620 V12K | 1408      | Lean Burn 4-cycle           | 20200254 | Gas    |
| John Deer       | 6135         | 575       | Generator                   | 20200102 | Diesel |
| Volvo Penta     | AB           | 670       | Generator                   | 20200102 | Diesel |
| Kohler          | 60           | 98        | Generator                   | 20200253 | Gas    |
| Ajax            | DCP-105      | 100       | 2-cycle Rich Burn           | 20200251 | Gas    |
| Ajax            | DCP-120      | 97        | 2-cycle Rich Burn           | 20200251 | Gas    |
| Ajax            | DCP-140      | 134       | 2-cycle Rich Burn           | 20200251 | Gas    |
| Ajax            | DCP-2801 LE  | 180       | 2-cycle Lean Burn           | 20200252 | Gas    |
| Ajax            | DPC-2802 LE  | 318       | 2-cycle Lean Burn           | 20200252 | Gas    |
| Ajax            | DPC-2803 LE  | 518       | 2-cycle Lean Burn           | 20200252 | Gas    |
| Ajax            | DCP-360 LE   | 334       | Lean Burn 4-cycle           | 20200254 | Gas    |
| Allison         | 501KC-5      | 4241/4376 | Turbine                     | 20200201 | Gas    |
| Rolls Royce     | 501KC-5 DLE  | 4423      | Turbine                     | 20200201 | Gas    |
| Caterpillar     | G3408 TA     | 400       | Rich Burn 4-cycle           | 20200253 | Gas    |
| Caterpillar     | G343 TA      | 310       | Rich Burn 4-cycle           | 20200253 | Gas    |
| Caterpillar     | 398 TA       | 625       | Rich Burn 4-cycle           | 20200253 | Gas    |
| Caterpillar     | G3306        | 194       | Rich Burn 4-cycle           | 20200253 | Gas    |
| Caterpillar     | G3508 LE     | 633       | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3516 TA     | 1085      | Rich Burn 4-cycle           | 20200253 | Gas    |
| Caterpillar     | 3516 LE      | 1340      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | 3608 TALE    | 2370      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3608 LE     | 2225      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | 3412 LE      | 586       | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3412 CLE    | 637       | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3412 LE     | 675       | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3512 LE     | 915       | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3512 TA     | 1050      | Rich Burn 4-cycle           | 20200253 | Gas    |
| Caterpillar     | G3612        | 3550      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3516 LE     | 1288      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3516 TALE   | 1818      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | G3516 TA     | 1150      | Rich Burn 4-cycle           | 20200253 | Gas    |
| Caterpillar     | G3606 LE     | 1775      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Caterpillar     | 16CM34       | 6600      | Lean Burn 4-cycle           | 20200254 | Gas    |
| Clark           | TCVA-10      | 3400      | Rich Burn 4-cycle           | 20200253 | Gas    |
| Dresser Clark   | TLAS-6       | 1500      | Rich Burn 4-cycle           | 20200253 | Gas    |
| Dresser Clark   | TLA-6        | 2000      | Rich Burn 4-cycle           | 20200253 | Gas    |
| Cooper Bessemer | GMVA-6       | 800       | Rich Burn 4-cycle           | 20200253 | Gas    |
| Cooper Bessemer | GMWA-8       | 2000      | Rich Burn 4-cycle           | 20200253 | Gas    |

|                |            |      |                   |          |     |
|----------------|------------|------|-------------------|----------|-----|
| Cummins        | G855 C     | 188  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | G855 NA    | 188  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | GTA855     | 225  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | GTA343     | 350  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | 855        | 281  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | GTA19 G2   | 452  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | KTA19 GC   | 432  | Lean Burn 4-cycle | 20200254 | Gas |
| Cummins        | G8.3C      | 118  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | GTA8.3     | 163  | Rich Burn 4-cycle | 20200253 | Gas |
| Cummins        | GTA8.3 GS2 | 224  | Rich Burn 4-cycle | 20200253 | Gas |
| GM             | 5.7L       | 88   | Rich Burn 4-cycle | 20200253 | Gas |
| GM             | 8.1L       | 162  | Rich Burn 4-cycle | 20200253 | Gas |
| GM             | 454        | 130  | Rich Burn 4-cycle | 20200253 | Gas |
| Solar          | Centaur    | 215  | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | 817        | 108  | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | F18GL      | 400  | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | F3524 GSI  | 840  | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | H24GL      | 530  | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | P48 GSI    | 934  | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | L7042 GSI  | 1478 | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | L7044 GSI  | 1680 | Rich Burn 4-cycle | 20200253 | Gas |
| Waukesha       | L5790 GL   | 1215 | Lean Burn 4-cycle | 20200254 | Gas |
| White-Superior | 8G-825     | 585  | Rich Burn 4-cycle | 20200253 | Gas |
| White-Superior | 8GT-825    | 900  | Lean Burn 4-cycle | 20200254 | Gas |
| White-Superior | 2406G      | 1176 | Rich Burn 4-cycle | 20200253 | Gas |
|                |            |      |                   |          |     |
|                |            |      |                   |          |     |